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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,491	08/25/2003	Matt Person	P06603US0	2377

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DES MOINES, IA 50309-2350

EXAMINER

TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/647,491

Applicant(s)

PERSON, MATT

Examiner

Thai-Ba Trieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 9-12 and 15 is/are rejected.
- 7) ☒ Claim(s) 13 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is in response to the Amendment filed on July 26, 2004.

Applicant's cooperation in correcting the informalities in the drawing and specification is appreciated. Claims 3 and 11 were amended.

Applicant's arguments, see Pages 5-10, filed on July 26, 2004, with respect to the rejection(s) of claim(s) 1-15 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is set forth below.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claims 9-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (Patent Number DE 42 29 999 A1), in view of Shoichiro Toyoda et al. (Patent Number 3,226,013).***

Bruns discloses a rotary internal combustion engine comprising:

a compression chamber (formed by 1,3) adapted to receive fuel and compress the fuel (See Figure 3);

an ignition chamber (formed 2,4) adapted to receive compressed fuel from the compression chamber and combust the compressed fuel (See Figure 3); and

a separation wall (Not Numbered) between the compression chamber (formed by 1,3) and ignition chamber (formed 2,4) adapted to allow passage of compressed fuel from the compression chamber to the ignition chamber (See Figure 3);

a first rotor (3) rotatably received within the compression chamber (formed by 1,3) and a second rotor (4) rotatably received within the ignition chamber (Formed by 2,4) (See Figure 3); and

a transfer slot (15) in the separation wall (Not numbered) adapted to permit compressed fuel to move from the compression chamber (Formed by 1,3) into the ignition chamber (Formed by 2,4) (See Figure 1).

Bruns discloses the invention as recited above; however, Bruns fails to disclose the chamber having an epicycloidal shaped wall.

Shoichiro Toyoda teaches that it is conventional in the rotary machine art, to the chamber having an epicycloidal shaped wall (See Figures 1 and 17, Column 10, lines 72-75, Column 11, lines 1-16).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the epicycloidal shaped wall of the chambers, as taught by Shoichiro Toyoda, to improve the efficiency of the Bruns device.

***Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (Patent Number DE 42 29 999 A1), in view of Shoichiro Toyoda et al. (Patent Number 3,226,013), and further in view of Fanning (Patent Number 2,359,903).***

The modified Bruns device discloses the invention as recited above; however, fails to disclose each rotor having a sideable vane.

Fanning teaches that it is conventional in the rotary motor art, to utilize each rotor (15) has a vane (17) slidably mounted in a radially extended slot so that rotation of the rotors cause outer ends of the vane (17) to engage the chambers (Formed by 10 and 22; and by 12 and 24) to vary the space on opposite sides of the vane (17) when the rotors (15) are rotating(See Figures 1 and 3, Page 1, Column 2, lines 20-28, Page 2).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized each rotor having a sideable vane, as taught by Fanning, to eliminate the fluid slip or leakage, in the modified Bruns device.

***Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (Patent Number DE 42 29 999 A1), in view of Shoichiro Toyoda et al. (Patent Number 3,226,013), and further in view of Zabriskie (Patent Number 1,267,157).***

The modified Bruns discloses the invention as recited above; however, fails to disclose a plurality of the rotary internal combustion engines being used in series along the same axis rotation.

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Zabriskie teaches that it is conventional in the rotary engine art, to utilize a plurality of the rotary internal combustion engines (10, 11) being used in series along the same axis rotation (29) (See Figure 1).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized a plurality of the rotary internal combustion engines being used in series along the same axis rotation, as taught by Zabriskie, to improve the efficiency of the modified Bruns device, since the use thereof would have increased the power of the engine.

***Allowable Subject Matter***

Claims **1-8** are allowed.

Claims **13-14** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: None of the cited prior art alone or in combination teaches a rotary engine including:

"Regarding claim 1:

*a compression chamber having a first 0° position adapted to receive fuel and compress fuel, and ignition chamber having a second 0° position adapted to receive fuel and compress fuel from the compression chamber wherein the second 0° position is offset in relation to the first 0° position".*

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

However, the examiner's new telephone number (751) 272-4867 will become effective after the expected changeover date of November 22, 2004.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB  
September 29, 2004



Thai-Ba Trieu  
Patent Examiner  
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